UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
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ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/687,002	TA ET AL.
	Examiner	**Art Unit**	
	Kenneth R. Coulter	2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 January 2008 (RCE filed)*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-60* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-60* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 February 2008* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2.   Claims 1 – 10, 12 – 28, 30 – 46, 48 – 57, 59, and 60 are rejected under 35

U.S.C. 102(e) as being anticipated by McKinnon, III et al. et al. (U.S. Pat. Pub. No.

2001/0039582) (Allocating Access Across a Shared Communications Medium in a

Carrier Network).

2.1   Regarding claim 1, McKinnon discloses a device for allocating network

bandwidth on a per user basis comprising:

        a processor (Figs. 3, 4; paragraphs 57, 58);

        a first network interface coupled to the processor (Figs. 3, 4; paragraphs 57, 58);

        a second network interface coupled to the processor (Figs. 3, 4; paragraphs 57,

58);

        a storage medium accessible by the processor (Figs. 3, 4; paragraphs 57, 58);

a set of computer instructions stored on the storage medium, executable by the

processor (Abstract; paragraphs 19, 123) to:

retrieve a set of user profiles, wherein each user profile corresponds to a

specific user in a set of users (Abstract "**forecasting bandwidth consumption**

of each user"; paragraphs 19, 21, 73 – 75);

establish at least one network bandwidth limit for each user in the set of

users based on the corresponding user profile for that user (paragraph 127 (see

below));

for each user in the set of users, regulate network bandwidth usage

associated with that user based on the at least one network bandwidth limit

established for that user (paragraph 125 (see below)); and

dynamically update the at least one network bandwidth limit for at least

one user from the set of users (paragraph 125 (see below)).

Paragraph 125

As now will readily be seen, the preferred methods and networks of the present

invention described in detail above enable a Carrier to accommodate differing demands

for instantaneous throughput by users competing for access across a shared

communications medium. Indeed, Carriers now are able to **continuously vary**

bandwidth consumption limits for each user between time intervals, either **in**

accordance with fairness considerations, forecasted network access usage of the

users, **or under provisions governing network access agreed upon between users
and the Carriers**.

Paragraph 127

For example, Carriers now can offer a guaranteed minimum level of network access to

a user that is constant throughout the day or week, or a guaranteed minimum level of

network access that **varies depending upon considerations such as the time of day**

or the day of week. Carriers also now can offer a guaranteed minimum level of network

access with a guaranteed maximum level of network access provided as needed in

accordance with a target probability. Furthermore, not only do these **customizable**

SLAs provide users with greater options for improving performance levels of

applications and services that utilize the Shared Access Carrier Networks, but they

further enable Carriers to differentiate between users in charging for network access,

thereby allowing Carriers to differentiate revenue streams for maximization of revenues.

2.2   Per claim 2, McKinnon teaches the device of claim 1, wherein the computer

instructions are further executable to dynamically update the at least one network

bandwidth limit based on a new user profile (paragraph 125).

2.3   Regarding claim 3, McKinnon discloses the device of claim 1, wherein the

computer instructions are further executable to dynamically update the at least one

network bandwidth limit based on a **new user** connecting to the device (paragraphs 125, 10).

2.4   Per claim 4, McKinnon teaches the device of claim 1, wherein the computer instructions are further executable to dynamically update the at least one network bandwidth limit based on a time of day (paragraph 102 "a time-of-day ITOD) minimum level of bandwidth"; paragraph104 "a user will have a guaranteed minimum level of bandwidth for a particular TOD"; paragraphs 127, 130).

2.5   Regarding claim 5, McKinnon discloses the device of claim 1, wherein the computer instructions are further executable to dynamically update the at least one network bandwidth limit based on utilization averaging for the corresponding user (paragraph 68).

2.6   Per claim 6, McKinnon teaches the device of claim 1, wherein the computer instructions are further executable to dynamically update the at least one network bandwidth limit by modifying a traffic control rule containing the at least one network bandwidth limit (Fig. 20; paragraphs 61, 128, 129).

2.7   Regarding claim 7, McKinnon discloses the device of claim 1, wherein the computer instructions are further executable to meter network bandwidth usage on a per user basis (paragraph 68).

2.8   Per claim 8, McKinnon teaches the device of claim 1, wherein the computer

instructions are further executable to establish a traffic control rule for each user

containing the at least one network bandwidth limit for that user (Abstract; paragraphs

19, 123).

2.9   Regarding claim 9, McKinnon discloses the device of claim 8, wherein the

computer instructions are further executable to dynamically update the at least one

network bandwidth limit for the at least one user by updating the traffic control rule for

the at least one user (Abstract; paragraphs 19, 123).

2.10   Per claim 10, McKinnon teaches the device of claim 9, wherein the computer

instructions are further executable to access each traffic control rule from an IP table

based on an indicator associated with each traffic control rule (paragraphs 50, 52).

2.11   Per claim 12, McKinnon teaches the device of claim 10, wherein the indicator

comprises an IP address (paragraphs 50, 52).

2.12   Regarding claim 13, McKinnon discloses the device of claim 1, wherein the

computer instructions are further executable to: receive a network communication from

a first user from the set of users over the first network interface destined for a network

connected to the second network interface; access a traffic control rule for the first user

that includes an upload network bandwidth limit for the first user; and determine if the

network communication causes the upload network bandwidth limit to be exceeded

(paragraph 65 "network access usages of each in the **upstream** and downstream

directions are monitored through the Data Collector 88"; paragraph 128 "threshold

values").

2.13   Per claim 14, McKinnon teaches the device of claim 13, wherein the computer

instructions are further executable to receive the network communication from the user

over a wireless network (paragraph 136 "the present invention nevertheless relates to

any other network (whether wireline or wireless")

2.14   Regarding claim 15, McKinnon discloses the device of claim 1, wherein the

computer instructions are further executable to: receive a network communication over

a network connected to the second network interface destined for a first user from the

set of users; access a traffic control rule for the first user that includes a download

network bandwidth limit for the first user; and determine if the network communication

causes the upload network bandwidth limit to be exceeded (paragraph 128 "threshold

values").

2.15   Per claim 16, McKinnon teaches the device of claim 15, wherein the computer

instructions are further executable to receive the network communication from the user

over a wireless network (paragraph 136).

2.16   Regarding claim 17, McKinnon discloses the device of claim 1, wherein the

computer instructions are further executable to monitor sessions on per user basis (Fig.

20, item 2002; Abstract "computer-executable **instructions** for **monitoring bandwidth**

consumption by **each user** for a time interval"; paragraphs 19, 65, 128).

2.17   Per claim 18, McKinnon teaches the device of claim 1, wherein the computer

instructions are further executable to: prioritize network bandwidth allocations for

network applications for at least one user based the corresponding user profile for that

user (Fig. 11; Abstract "prioritizing the users for allocation of bandwidth"; paragraphs 19,

21, paragraph 101 "The prioritization policies may depend upon, for example, (i) each

user's SLA, (ii) each user's forecasted bandwidth, (iii) fairness considerations, or (iv)

any combination thereof."; paragraphs 102 – 105).

2.18   Regarding claims 19 – 28, 30 – 46, 48 – 57, 59, and 60, the rejection of claims 1

– 10 and 12 – 18 under 35 USC 102(e) (paragraphs 2.1 – 2.17 above) applies fully.

Claim Rejections - 35 USC § 103

        The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains.
Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

Claims 11, 29, 47, and 58 are rejected under 35 U.S.C. 103(a) as being

unpatentable over McKinnon et al. in view of Hagen (U.S. Pat. Pub. No. 2002/0075844)

(Integrating Public and Private Network Resources for Optimized Broadband Wireless

Access and Method).

Regarding claim 11, McKinnon does not explicitly disclose the device of claim 10,

wherein the indicator comprises a MAC address.

Hagen discloses a MAC address that is an indicator associated with a traffic control rule

(paragraph 50).

It would have been obvious to one of ordinary skill in the art at the time of the invention

to implement the MAC address of Hagen in McKinnon in order to effectively identify a

single traffic control rule for a particular user from a multitude of control rules stored.

Per claims 29, 47, and 58, the rejection of claim 11 under 35 USC 103 applies

fully.

Response to Arguments

Applicant's arguments with respect to claims 1 – 60 have been considered but

are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Kenneth R. Coulter whose telephone number is 571

272-3879. The examiner can normally be reached on M - F, 7:30 am - 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Rupal Dharia can be reached on 571 272-3880. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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published applications may be obtained from either Private PAIR or Public PAIR.

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you have questions on access to the Private PAIR system, contact the Electronic

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kenneth R Coulter/
Primary Examiner, Art Unit 2141

krc